

# MISSOURI. Conservationist

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# Bridging the Gap

Each generation of people bring a unique set of knowledge, skills, likes and dislikes to the world. When those ideas differ among generations we often call it a generation gap. I've noticed through

the years that outdoor activities such as hunting, fishing, canoeing, wildlife watching and hiking often bridge or close that generational gap. No matter the difference in years, people seem to be able to break down age barriers and enjoy the outdoors together.

Missouri's outdoor opportunities help people of all ages interact and provide teaching and mentoring possibilities for many parents, grandparents, relatives and friends. The Department has just updated two shooting ranges, Lake City Range near Kansas City and the Jay Henges Range near St. Louis. Both facilities offer Missourians the opportunity to enjoy recreational sport shooting. Teaching a youngster to safely shoot a .22 rifle is extremely rewarding for both teacher and student. Bring plenty of .22 ammunition! Helping another person learn to become a good wing shot is one of my favorite shooting pastimes. Missouri is a national leader in shooting ranges with five staffed shooting ranges and unstaffed shooting ranges on more than 60 conservation areas.

Our state is the float-stream mecca for many Midwesterners. Canoeing is a safe, easy outdoor adventure that you can help someone else learn about. Try floating during different seasons, you will be amazed at how much a stream changes with the seasons.

Teaching someone to hunt, fish, become a wildlife watcher or simply to better appreciate the outdoors creates a more knowledgeable citizenry, a more engaged public and is reward-

ing to everyone involved in the activity. Watching a youngster catch their first fish, introducing someone to hummingbirds close up or helping another person learn to identify birds can all be personally rewarding. I marvel at kids' reactions when my friend Tim Baker, a banker in Springfield, teaches them about bird dogs. Tim lets kids throw retrieving dummies and teaches them to give his springer spaniels commands. Watching the kids excitement level elevate and their interaction with the dogs is something I'll never forget! I know they won't forget their experience with the spaniels!

Each of us has had the opportunity to learn about the outdoors from other people. Pass on your knowledge and help others to experience those special moments we have all come to cherish in the outdoors.

Help bridge the gap whether it's generational, knowledge-based or just someone who's never had outdoor opportunities by introducing them to an outdoor activity and helping them develop their skills in the outdoors. Bridging the gap brings people of all ages together to enjoy outdoor activities. Enjoying our high-quality outdoor lifestyle in Missouri is something we can all be proud of. By helping someone else improve their quality of life you might just find your own quality of life improves. Help bridge the gap!

Tim D. Ripperger, deputy director



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**OUR MISSION:** *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*

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Cover: Henslow's sparrow by  
Noppadol Paothong

Left: Discover Nature Schools—sixth-graders  
have hands-on fun learning about  
aquatic insects. by David Stonner

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## NextGEN

This section reports on goals established  
in *The Next Generation of Conservation*.  
To read more about this plan, visit  
[www.MissouriConservation.org/12843](http://www.MissouriConservation.org/12843).

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Patch-burn grazing partnership improves prairie for birds and cattle.

## OZARK TRAIL

The June issue was particularly good, especially David Stonner's

article and photographs along the Ozark Trail [Page 22]. As an amateur photographer, I appreciate David sharing his camera settings for each photograph. I wish more published photographs would include the camera settings, but I realize that many photographers guard such information carefully. Sharing the photographic information helps those of us less skilled learn to use our cameras more effectively.

I would be interested in knowing what kind of camera and model David uses.

*William Barber, Gravois Mills*

*Author's note: I use a Canon EOS 1Ds Mark II (quite a mouthful). As far as lenses, I use a 16-35, 24-70, 70-200, 100-400, and 100mm Macro. My colleague Noppadol Paothong has the same camera as I do as well as a Canon 1D Mark IV. His lens setup is the same as mine, with the addition of a 500mm telephoto for wildlife.—David Stonner, nature photographer*

I just finished reading the fine article on the Ozark Trail by David Stonner in your June issue of the *Missouri Conservationist*. I noticed that several places in the article Mr. Stonner refers to the Bell Mountain Natural Area when in fact it is the federally designated Bell Mountain Wilderness Area and has different rules and regulations that apply to that area of the trail. In fact, the summit of Bell Mountain is not on the Ozark Trail at all

but on the trail system within the Bell Mountain Wilderness Area that connects to the Ozark Trail.

*Danny McMurphy*

*Ozark Trail Association, membership chairman*

*Author's note: Thank you for pointing out my mistake regarding the Bell Mountain Wilderness Area. It was incorrectly referred to as a Natural Area in both the map and in the photo caption information. It was an oversight that occurred when I was gathering all of the information on the many great places to see around the OT.*

*I know that the summit of Bell Mountain is not on the Ozark Trail but that a side trail connects the two, something I mentioned in the caption info, but then muddled by saying it is one of my favorite spots on the Ozark Trail. I should have rephrased it to say "near" the Ozark Trail.*

*I'd like to thank you and the OTA for all the fine work on this state treasure. I've been to a couple of OTA Mega-Events and the work that your organization does for the trail is truly commendable. I can tell by talking with the many volunteers that it is a true labor of love for them. The Trail keeps getting longer and better all the time.—David Stonner, nature photographer*

## FOR THE LOVE OF PINE

I just read the article in the June issue [Page 12] and loved every word. I am from the Eminence area, so it was like reading about home. I lived in Indian Creek.

I've never been to this new conservation center, but I'm sure I will. Russ Noah was a dear friend, also a talented man. I had the pleasure of seeing the Ford Model T in his shed years ago. Thank you for a great magazine.

*Gloria Harter, Springfield*

## CORRECTION

The July 2010 cover photo was misidentified as a "giant swallowtail." It is a pipevine swallowtail (*Battus philenor*). We regret the error.



## Reader Photo

## PRICKLY PERFECTION

Michael Bell, of Warrenton, took this photo of a prickly pear cactus in his rock garden. Bell says he was inspired to plant the cactus after reading about it in a past issue of the *Conservationist*. Of his rock garden, Bell says he came up with the idea shortly after building his house. "I had this little hillside next to the lower driveway and wanted to do something different than just grass," Bell says. In addition to maintaining his rock garden, Bell enjoys fishing with his wife, children and grandchildren in his pond, as well as hunting deer, squirrel and mushrooms. "Living here on this wooded property has been my lifelong dream. To have a place to hunt and fish just right out of my backdoor is really a great feeling."





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Phone: 573-751-4115  
Address: PO Box 180,  
Jefferson City 65102-0180

#### REGIONAL OFFICES

Southeast/Cape Girardeau: 573-290-5730  
Central/Columbia: 573-884-6861  
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Address: Ombudsman, PO Box 180,  
Jefferson City 65102-0180  
E-mail: [Ombudsman@mdc.mo.gov](mailto:Ombudsman@mdc.mo.gov)

#### EDITORIAL COMMENTS

Phone: 573-522-4115, ext. 3245 or 3847  
Address: Magazine Editor, PO Box 180,  
Jefferson City 65102-0180  
E-mail: [Magazine@mdc.mo.gov](mailto:Magazine@mdc.mo.gov)

#### READER PHOTO SUBMISSIONS

Address: Missouri Conservationist, Reader Photo,  
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## Find a Public Dove Hunting Area Near You

Dove hunting season opens Sept. 1 and runs through Nov. 9, with a limit of 15 doves daily and 30 in possession. Finding a place to hunt doves is a breeze. The Conservation Department plants sunflowers, wheat, millet and other crops on dozens of conservation areas statewide to provide food for doves and other wildlife. Doves swarm those fields when the crops ripen, creating excellent hunting opportunities. To make managed dove fields easy to find, locator maps are available at [www.MissouriConservation.org/18183](http://www.MissouriConservation.org/18183). You can sort the list by area name, by county or by region.

Knowing that an area has managed dove fields does not guarantee good hunting. Even in the best years, crops grow better on some areas than others. Excessive rainfall can delay crop planting on some, and crops planted late may not be ready for birds by Sept. 1.

The shooting can be fast and the mood festive at managed dove fields on opening day.

Keep safety foremost in mind when hunting fields with numbers of other hunters. Wise hunters space themselves at safe intervals and take positions that avoid interfering with one another or shooting in others' direction. Do not shoot at birds lower than 45 degrees above the horizon, and let other hunters know if you have a dog that will be retrieving birds. Politely call attention to safety issues the first time they arise. Most hunters want to be safe, but novices might need some friendly coaching about what is appropriate in a crowded dove field.

Hunters are asked to report any doves they shoot that have leg bands. This can be done by calling 800-327-2263 or online at [www.reportband.gov](http://www.reportband.gov). Regardless of the reporting method, hunters provide the band number, and where and when the bird was killed. Full details of dove hunting regulations are found in the *2010 Migratory Bird Hunting Digest*, available wherever hunting permits are sold.

## Elk Restoration

The Conservation Commission has directed its staff to reinitiate plan development that would permit elk restoration around Peck Ranch Conservation Area while addressing concerns raised nearly a decade ago.

At the July Commission meeting, the Commission received a report on an elk-restoration feasibility study conducted in 2000. That effort was suspended due to the emerging issue of chronic wasting disease and concerns about adequate habitat.

The Commission requested the presentation in response to inquiries from the Rocky Mountain Elk Foundation, citizen inquiries and media coverage of possible elk restoration. Following the presentation, the Commission directed staff to reinitiate plan development, based on current information and knowledge, incorporating the following:

- A well-defined elk restoration zone around Peck Ranch CA focusing on an area in Carter, Shannon and Reynolds counties,
- Established herd-management guidelines, including a release protocol, population objectives and hunting as the primary management tool,
- Effective health protocols, including disease testing and a contingency plan to ensure the health of domestic livestock and wildlife, and
- Provisions for dealing with elk that leave the restoration zone.

The area around Peck Ranch CA has suitable elk habitat, a high percentage of public land, low density of public roads and limited row crop and livestock production. Director Bob Ziehmer said several things have changed since the Conservation Commission first considered the idea of elk restoration.

"The Department has continued to stay engaged on the restoration topic since 2000. There have been significant improvements in habitat for elk on public land around Peck Ranch in the past 10 years," Ziehmer said. "Efforts to restore natural communities on a landscape scale have paid off in ways that would benefit elk—a species native to our state. We also have a better understanding along with testing options for chronic wasting disease than we did 10 years ago. Other states

have developed and successfully implemented protocols to address animal health concerns.”

Commission Chairman Chip McGeehan said that Arkansas, Kentucky, Pennsylvania, Tennessee, Virginia and Wisconsin have restored limited elk populations. He said these restoration programs have provided significant economic benefits through ecotourism and hunting, without adverse affects on agriculture or wildlife.

“The elk is one of Missouri’s native species,” said McGeehan. “Bringing elk back to the Show-Me State is in line with our longstanding commitment to landscape-scale conservation. We will engage citizens by providing information and working to gather their thoughts about elk restoration.”

The Department will hold public meetings in the area around Peck Ranch to gather citizen input. Details of public meetings on possible elk restoration will be announced later. The Conservation Department will accept public comments at any of its offices statewide and at [www.MissouriConservation.org/contact-us/contact-form](http://www.MissouriConservation.org/contact-us/contact-form). Staff will prepare and submit a

report with findings to the Conservation Commission regarding the elk restoration program at the October 2010 Commission meeting.

## Waterfowl Reservations

Hunters who plan to apply for reservations at Conservation Department managed wetland areas should remember that reservations for three areas will go through a new system this year.

You can apply for reservations at 12 wetland areas from Sept. 1 through 18 at [www.MissouriConservation.org/7559](http://www.MissouriConservation.org/7559). However, at Eagle Bluffs, Grand Pass and Otter Slough conservation areas, the Conservation Department is testing a new reservation system called Quick Draw. A Quick Draw on Monday of each week will assign hunting slots for the following Friday through Monday. A Quick Draw each Thursday will assign slots for the following Tuesday through Thursday.

The traditional system assigns reservations months in advance. Quick Draw allows hunters to take weather and other conditions into account when deciding when and where to apply. It also is designed to reduce the number of hunters

turned away from wetland areas each morning and get hunters to their spots more quickly.

Neither Quick Draw nor the traditional system allow nonresidents to apply for reservations. However, resident hunters who draw reservations can include nonresidents in their hunting parties. Also, nonresidents can take part in the daily, on-site “poor-line” drawings under both systems.

Under Quick Draw, the computer drawing determines the order in which successful applicants are allowed to select hunting spots. It also determines where hunting spots for the poor line will fit in the daily order of selection. On any given day, the No. 1 spot can be in either the Quick Draw or poor-line portion of the draw.

Having a reservation under the traditional system is not always good for reservation holders. Reservations do not always coincide with those days when large numbers of ducks and geese are present. The only way to concentrate your hunting efforts on the best days of the

*(continued on Page 6)*



## ASK THE OMBUDSMAN

**Q:** I have lots of honeybees visiting my hummingbird feeders. What can I do to prevent that problem?

**A:** It is common for bees and wasps to visit hummingbird feeders, especially in late summer, fall and early spring, when natural nectar sources are more limited. There are hummingbird feeders on the market that are “bee proof” because the nectar is contained low enough in the feeder that bees cannot reach it, but, with their long beaks, hummingbirds can. You might try reducing the sugar content from a 1-4 ratio of sugar to water to a 1-5 ratio. It may also be helpful to change the locations of your feeders every other day or so. The birds will relocate them more quickly than will the bees.



Bee and ruby-throated hummingbird

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at [Ombudsman@mdc.mo.gov](mailto:Ombudsman@mdc.mo.gov).



year is to stand in the poor line. Quick Draw gives hunters more flexibility by letting them try for guaranteed hunting slots on the hottest hunting days of the year.

Driving to wetland areas to stand in the poor line is a costly gamble for those who live far from their favorite hunting areas or who must take a day of vacation for a hunt. Quick Draw will provide an opportunity for parents who want to take their children hunting during breaks in the school year.

## Oaks Will Survive Gall Infection

Most of the oak trees that turned brown after being attacked by an insect parasite this summer will survive the experience. Trees from St. Louis to Branson were attacked by a wasp that lays eggs in leaves, causing the growth of small, button-like galls. The problem was especially severe in the area around Rolla, Lake of the Ozarks, Springfield and Table Rock Lake. Each of the pinhead-sized galls provides food and shelter for a wasp larva. In severe cases, entire leaves turn brown over much of a tree. Healthy trees recover fully by the following year. However, trees that are stressed by ice or wind damage are more vulnerable to declining health if they lose most of their leaves to gall damage. These



Gall-infected oak

trees can benefit from supplemental watering during dry weather and fertilizing next spring. To reduce the severity of future outbreaks, burn or compost fallen leaves. More information about jumping oak galls is available at [www.MissouriConservation.org/22967](http://www.MissouriConservation.org/22967).

## Early Teal Season Sept. 11–26

Breeding bird counts for blue-winged teal are in, and the news is good again this year. The 2010 early teal season will be 16 days long. Teal migrate earlier than larger ducks. The early teal season provides an opportunity to hunt these species.

Most of the teal seen in Missouri during the early season are blue-winged teal. The U.S. Fish and Wildlife Service bases the season length on how many of this species are counted in surveys of their nesting areas early in the summer. If the blue-winged teal breeding population estimate is 4.7 million or more, the early teal season runs for 16 days. If the breeding population estimate is at least 3.3 million but less than 4.7 million, the season lasts 9 days. A breeding population estimate of fewer than 3.3 million birds triggers cancellation of the early teal season.

This year's blue-winged teal breeding population estimate is 6.3 million, so the season will run from Sept. 11 through 26, with limits of four blue-winged and green-winged teal in the aggregate daily and eight in possession. Shooting hours are from sunrise to sunset. Last year's breeding population estimate was 7.4 million.

## Nominate Now

The Missouri Conservation Commission would like to recognize citizens who make outstanding contributions to conservation. Nominations are being sought for the Master Conservationist Award and the Missouri Conservation Hall of Fame. The Master Conservationist Award honors living or deceased citizens while the Missouri Conservation Hall of Fame recognizes deceased individuals. Those who can be considered for either honor are:

- Citizens who performed outstanding acts or whose dedicated service over an extended time produced major progress in fisheries, forestry or wildlife conservation in Missouri.
- Employees of conservation-related agen-

cies who performed outstanding acts or whose dedicated service over an extended time produced major progress in fisheries, forestry or wildlife conservation in Missouri.

Anyone can submit a nomination, which should include a statement describing the nominee's accomplishments and a brief biography. Criteria and nomination forms for each award are available on the MDC website at [www.MissouriConservation.org/node/7763](http://www.MissouriConservation.org/node/7763) and [www.MissouriConservation.org/node/7759](http://www.MissouriConservation.org/node/7759). Please submit nominations by Sept. 1 to Denise Bateman, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180 or e-mail to [Denise.Bateman@mdc.mo.gov](mailto:Denise.Bateman@mdc.mo.gov).

A screening committee appointed by the Department's director meets annually to consider nominees, with the Conservation Commission conveying final approval.

## Efforts Soften Blow of Gulf Oil Spill

The Conservation Department has joined a federally led effort to help migratory birds whose winter habitat along the Gulf Coast has been damaged by the Deepwater Horizon oil spill. The USDA Natural Resources Conservation Service announced the Migratory Bird Habitat Initiative (MBHI) in June, and concluded sign-ups Aug. 1.

The goal is to maximize migratory bird habitat and food resources on private land, providing critical wintering habitat for a significant number of waterfowl, wading birds, sparrows and other birds. Missouri counties eligible for MBHI assistance are Bates, Vernon, Lafayette, Johnson, Saline, Cooper, Moniteau, Cole, Bollinger, Scott, Mississippi, Stoddard, Butler, New Madrid, Dunklin, Ripley, Cape Girardeau and Pemiscot.

The MBHI encourages farmers, ranchers and other private landowners in Missouri and seven other southern states to receive payment incentives to provide feeding, loafing and resting areas on lands that can immediately provide this type of habitat, such as rice fields and wetland acreage. The Conservation Department's role in the initiative includes advising landowners and helping the NRCS design management practices on enrolled acres. The need is urgent, since migrating birds began arriving in Missouri on their southward migration in mid-July.



# “I AM CONSERVATION”



DAVID STONNER

**Stream Team 421 members (from left) Bill Armon, Julie King, Marty King and Elizabeth King work on a small tributary to the Big River near Dittmer. The King and Armon families formed their stream team in 1993.**

## Stream Team 421 — King and Armon Families *by Jim Low*

Marty King was one of a small group of visionaries who launched Missouri Stream Team in 1989. So you have to wonder why it took him and fly-fishing buddy Bill Armon until 1993 to form a Stream Team of their own.

“I was more than happy just to work in an advisory capacity to the Federation,” says King, “speaking to small groups and clubs to get them onboard. But after Joe Bachant (the Conservation Department’s first Stream Team coordinator) got one started I felt it was obligatory to establish one on behalf of the Federation.”

The project was a natural fit for the two fly-fishers, whose families could field 15 people for projects. Their efforts have

benefitted the Big, Current, Meramec and North Fork rivers.

“They were good rivers to float and definitely needed a good cleaning,” says King. “We would go for a family weekend on the river and pick it up as we would go. My family had done that for a long time. We were big picker-uppers, even before there was a Stream Team.”

Besides picking up trash, Stream Team 421 took Volunteer Water Quality Monitor training and made special trips to check water quality on the Current, Meramec and Big rivers.

Fisheries Management Biologist Mark VanPatten calls King “a Missouri rivers and streams hero.”

“Marty championed Stream Teams and spread the gospel throughout the state,” says VanPatten. “There are very few, if any, meetings, events, conferences and on-the-ground litter pickups that Marty hasn’t attended statewide over the last 21 years. The number would easily be in the hundreds if not thousands.”

Asked about his favorite part of having a Stream Team, King says, “Missouri is blessed with so many beautiful streams, it’s hard to pick one thing. I would say just being there.” ▲





# DISCOVER **nature** SCHOOLS

The best place to learn  
about nature is outdoors.

by REGINA KNAUER





This Kansas City student's excited reaction to fishing during a Discover Nature Schools field experience sums up the goal of the program.

DAVID STONNER





What has come over Missouri students? They're asking teachers to do science. They're begging teachers to take them outside so they can take air temperature, watch birds and record observations. They want their parents to see their science books. They want to take their science notebooks home to record what they see in their own backyards. They're acting like scientists—without being told! What's happening?

It's simple—nearly 400 middle and elementary school teachers have adopted the Discover Nature Schools instructional units in their science classes, and the program is proving to be science and conservation education at its best. Bottom line: the more students equate the outdoors with learning, the more comfortable they become with outdoor environments and with recording outdoor experiences. With their hands directly on the natural world, kids begin to think, ask questions, record data and draw conclusions—just like scientists.

### **Educator Supported**

Teachers love the program, too. Discover Nature Schools units slip in easily rather than add to what teachers must cover in a year. The activities keep their students engaged and excited from beginning to end. The concepts are aligned closely with the requirements for state standards, grade-level (and course-level) expect-

tations and testing. Grants provide funding for classroom materials and reimbursement for bus transportation to field experiences where students can apply what they've learned.

One teacher said she learned as much as the students and that the fourth-grade unit was the beginning of naturalist learning for them. "They loved using the science tools: thermometers, magnifiers, binoculars, field guides and science notebooks. They wanted to learn more." Another described how it instilled a sense of stewardship in the students—they began picking up trash each time they went outside.

Outdoor exploration, self-discovery and learning about nature while experiencing it are at the heart of the Discover Nature Schools units. Over 20,000 Missouri students have already been involved. The ultimate goal of the program is to reach every student in every school. Imagine over one million kids in Missouri public and private schools taking advantage of fun, engaging conservation education. Imagine them able to experience hands-on learning in nature close to home throughout their entire school career.

## **GETTING STARTED**

Teachers, to launch a Discover Nature Schools program in your class contact your local education consultant. He or she can introduce you to the units, register you for training and help you get started.

### **Instructional Units**

- *Conserving Missouri's Aquatic Ecosystems* (grades 6–8)
- *Nature Unleashed—The Untamed World of Missouri Ponds, Forests and Prairies* (grades 3–5)
- *Nature Unbound* (grades 9–12) in pilot fall 2010
- Instructional unit for K–2 coming soon!

Contact information and complete units and grant guidelines are available on the MDC website at [www.MissouriConservation.org/node/9019](http://www.MissouriConservation.org/node/9019). Or, call 573-751-4115 for more information.

### **State and National Importance**

Large movements are afoot to reconnect children with nature and the outdoors. President Obama and first lady Michelle Obama recently unveiled the "Let's Move Outside" initiative. Even Governor Jay Nixon's Children in Nature Proclamation recognizes the Discover Nature Schools program as a means not only to "strengthen children's connection to nature and enhance their education about the environment" but also to satisfy part of the criteria for his and first lady Georganne Nixon's Children in Nature Community Challenge.





DAVID STONNER

## Inside the Outside Program

Each Discover Nature Schools unit provides colorful and engaging books for students. Teachers use the lesson plans provided to guide their students through hands-on outdoor activities that bring the science concepts alive. Units encourage the use of science notebooks. Students measure and record specific details about the weather, but they also make sketches and describe personal observations and feelings. A Silex R-1 fourth-grader's science notebook entry illustrates how such activities encourage the flow of literacy from science to language arts: "Moss on broken tree feels like velvet. ..."

So far, two of the five units are available: the middle school aquatic unit, *Conserving Missouri's Aquatic Ecosystems*, and the ele-



DAVID STONNER

**Top:** Students experience the excitement of discovery at Hartell Lakes CA.

**Left:** Students use ice cube trays to sort and identify aquatic insects they netted from the pond at Burr Oak Woods Nature Center.



mentary school unit, *Nature Unleashed—The Untamed World of Missouri Ponds, Forests and Prairies*. Free student books and teacher guides are available for all Discover Nature Schools units. *Nature Unleashed* students also receive science notebooks.

This fall, *Nature Unbound—The Impact of Ecology on Missouri and the World* will be offered as a pilot program for use by high school biology, ecology and environmental science teachers. A kindergarten through second-grade unit is currently in production, and the pilot is scheduled for fall 2011. An early childhood unit will be piloted the following fall.

**Right: Fourth-grade students from Silex R-1 share a moment of observation and science notebooking at Cuivre River State Park.**

**Below: Students focus on recording the wealth of plants and animals they've discovered on their *Nature Unleashed* field experience.**

### Real-World Science

Discover Nature Schools field experiences are field trips with a twist. They are designed to be perfect opportunities for kids to take what they learned while exploring their schoolyard “ecosystems” and apply it to new, unfamiliar natural areas. Once they have completed the *Nature Unleashed* unit, fourth-graders exit the school bus armed with science notebooks, thermometers, binoculars and magnifiers ready to enter a world of exploration, observation and notebooking. Students know that they will be responsible for organizing and reporting on the data gathered during their field experience.

Sixth-graders who have completed the aquatic unit, *Conserving Missouri's Aquatic Ecosystems*, can grab their kick nets, magnifiers,

ice cube trays and fishing poles and take turns testing the dissolved oxygen and nitrate levels of an area's pond or stream, sampling the aquatic insect life in that body of water and fishing.

Students come away eager for learning, with an understanding of scientific concepts and an awakening lifelong love of angling.

Parents send their children off to school and hope they gain knowledge. When their children come home excited about what they





learned and want to keep learning on their own, that's a bonus. What better way to learn about the natural world than to be immersed within it? What more could we wish for our children than genuine, outdoor "aha!" moments? What could be better than written words in science books coming to life in their hands? The Discover Nature Schools program empowers students to make and carry those connections with them into adulthood. ▲

## EMBRACE THE ELEMENTS

Safety and proper clothing are always of primary concern. However, our children need to spend time outside exploring and experiencing plants and wildlife in all kinds of weather. To take students outdoors during a soft, fine rain is to open their senses in new and unexpected ways. To take them outside after a snowstorm is to open their eyes to wildlife highways normally hidden in grass or on concrete. To take them into nature is to help them answer questions, offer theories and make deeper connections.







Yale and Alicia Muhm's property lies in the Missouri River Hills Priority Forest Landscape. The area constitutes the largest continuous stretch of forest north of the Missouri River.



A photograph of a forest floor with large, moss-covered rocks in the foreground and a dense stand of tall trees in the background. The text is overlaid on the right side of the image.

# For Generations to Come

A conservation  
easement keeps  
a forest intact.

by CHRIS CANIPE • photos by DAVID STONNER



**Y**ale and Alicia Muhm live a few miles north of Marthasville, nestled in the quiet, rolling landscape of the Missouri River Hills. They own more than 1,000 mostly wooded acres, which are dotted with small ponds and streams, and home to an abundance of wildlife. Not far to the east is St. Charles County and the fastest growing urban population in the state. Strip malls and subdivisions mark the growth, which appears to be on a collision course with the Muhms.

They began to worry several years ago about what development could do to the area.

"Many of the areas I saw as a child that were beautiful or pristine are now part of some kind of development," Yale says. "We could sort of see the writing on the wall."

Last year, the Muhms donated a conservation easement of more than 1,000 acres to the Ozark Regional Land Trust. The arrangement allows the Muhms to retain ownership and for their children to build one home each on the property, but it also guarantees the land will never be subdivided.

"It says in the simplest of terms that it can never be developed," Yale says.

The Ozark Regional Land Trust is one of more than 1,600 such organizations nationwide working to help landowners protect property well into the future through conservation easements and land preserves. Edward Heisel is the group's executive director, and says that since the trust's founding in 1984, it has arranged roughly 100 conservation agreements to protect more than 21,000 acres in the lower Midwest.

"Our mission is really to offer landowners tools to accomplish conservation goals," he says.

When landowners donate a conservation easement to a land trust, they generally set terms that forfeit some development rights while retaining the right to live on the property. The land can be sold or handed down, but future owners will be bound by the terms of the easement. The land trust's job is to act as a steward, and to make sure the easement's terms are followed.

Forever.

"Most land trusts feel that we have a higher bar set because we're taking on permanent obligations," Heisel says. "We're basically making a promise to these landowners that we're going to be able to do that."

The trust is responsible for maintaining a relationship with future generations of owners and for monitoring the condition of the land.

"Every year we'll be in touch with the landowner or



**Alicia and Yale Muhm donated more than 1,000 acres to the Ozark Regional Land Trust to ensure the property would stay in their family and not be developed.**

whoever buys or inherits the land," Heisel says. "We'll walk around on the property and do a monitoring, and we'll write a short report. The most important part is the relationship we maintain with those landowners."

The Muhm's property lies in the Missouri River Hills Priority Forest Landscape—a roughly 200,000-acre stretch of forest that the Department of Conservation has designated to be a priority for biodiversity. The area constitutes the largest continuous stretch of forest north of the Missouri River in the state and is sanctuary to a unique wildlife population that includes deer, salaman-



## The Ozark Regional Land Trust's job is to act as a steward and to make sure the easement's terms are followed. **Forever.**

ders, frogs, migratory songbirds, wild turkey and a small population of ruffed grouse.

Gus Raeker works for the Missouri Department of Conservation and has served as a resource forester in the Missouri River Hills. He helped the Muhms get in contact with the Ozark Regional Land Trust and says he immediately recognized the value of the land's conservation.

"What's really unique about that property is where it's at and its size," Raeker says. "In the midst of all that development, you've got a 1,000-acre block in one ownership. That in itself is pretty huge."

In addition, the Muhms have worked with the Conservation Department to improve hundreds of acres of forest through a combination of contract work made possible by cost-share funds, and through their own hard work. They thinned out the trees to improve forest health and restore healthy ground vegetation, and made the area more hospitable to native species. Raeker says that prior to the last century, wildfires did the job.

"Our woods now have more trees per acre than they ever have," he says, "and the trees are much more crowded than they ever were."

Encouraging healthy ground vegetation is one of the Department's main priorities in the area. The Department has worked to remove encroaching fire-intolerant maple trees that grow tall and keep sunlight from reaching the forest floor. It's also worked to encourage desirable trees and shrubs, and to re-establish native wildflowers and grasses.

A healthy forest floor is essential to several native species, including the ruffed grouse, whose population has been on decline statewide. Ruffed grouse are related to quail, but are about four times larger. They thrive in woodlands with thick undergrowth and typically spend their entire lives within a few square miles.

Raeker says he is impressed by the health of the Muhm's property. "There's been a bit of logging out there but it seems like it was done well," he says. "You see very little negative disturbances out there."

Alicia Muhm says she and her husband have lived on the property for more than 32 years. She says about half of the land has been in Yale's family for more than 50 years, but the rest has been purchased from neighbors along the way.

"Rather than seeing it be developed, we've purchased the land from them," she says.

The Muhms are both retired; Yale from a career as a

thoracic surgeon and Alicia from nursing. The two met on the job while working in an intensive care unit. Alicia says they originally moved to Marthasville on a trial basis. "It was 38 miles door to door to get to the hospital," she says. "But we've lived here ever since and we love it."

The Muhms have four adult children and four grandchildren. It is important to the Muhms that their kids and grandkids have the ability to enjoy their property into the future. The conservation easement allowed this flexibility while also providing peace of mind from knowing that their property would be well cared for in a conservation friendly manner forever.

Heisel says the Muhm's donation is among the largest transactions his group has been a part of. "It's an extraordinary gift," he says. "It's not going to be public land, but it will help keep the landscape intact. Any time a landowner makes that kind of donation, they deserve some recognition."

Raeker agrees. "The Muhms are outstanding citizens and they're really doing a great thing for Missouri," he says. ▲



**The Muhm's property, located just north of Marthasville, is mostly wooded with small ponds and streams and has an abundance of wildlife.**



# BEYOND the CLASSROOM

Outdoor mentors are  
the best hunter  
education resource.

by MICHAEL E. BROOKS • photos by DAVID STONNER







Michael Brooks mentors a young hunter at Bois d'Arc CA near Springfield.

Growing up in southwest Missouri with a father who was raised during the Great Depression and hunted for survival gave me a different perspective.

My father was the eldest of four children and was only 15 years old when my grandfather passed away. As the man of the house, he took on the responsibility of being a provider. He and my uncle hunted rabbits and squirrels and took them to the general store in Cave Springs. They traded their harvest for the groceries my grandmother needed and another box of .22 shells. They would then hunt their way back home, and the game they took on the return trip they ate during the week.

My father was a hardworking, busy man, but he believed I also should learn about nature, even if I didn't depend on it for everyday survival. When I was about 6 years old, he and I had a fun activity we did together when he had free time. He would take me to the woods at my grandmother's house, just west of the town of Willard. We would collect small samples of various tree branches. Once in a while, he would even let me use my pocketknife to cut off our newly found treasure.

We took them home where my father had made a chart of painted plywood, marked with the names of the indigenous species of trees. We would study and identify each one and, if it was one we needed, we wired it on the board to fill a square. On the next trip we hunted for the ones we still didn't have. This was my father's version of the outdoor classroom.



## Making Connections

Being in the woods with my father gave me the best mentoring that a child could have. I often reflect on how different my life would have been had I not had a father like this—a man who respected, appreciated and understood all of nature: the animals, land, air, trees and water that we, just as our ancestors, depend on for survival. He shared with me his close relationship with nature, stressing important things like safety, respect and ethics.

**As outdoor enthusiasts we have a duty to mentor someone in the outdoor classroom.**

I suppose he recognized early on that I had a strong interest in nature, so he took every opportunity to encourage and cultivate that passion. Perhaps it was his way to prepare me

for life from his own experiences. He taught me how to shoot a rifle and a shotgun. He taught me how to clean rabbits, squirrels and quail. He taught me about the things in nature that sting, bite, stick, poke, poison and chase. He taught me things like you don't eat persimmons until after the first good frost and that gooseberries are good for making pies if you use enough sugar.

He always made sure that I had plenty of .22 shells and a subscription to my favorite magazine, *Fur-Fish-Game*, both being a high priority in a young man's life. Even though money was tight, I was always able to earn a little by doing chores around the house so I could save





up to buy that year's issue of the Hawbaker's Trapping Supply Catalog or the newest issue of the Herter's or Cabela's sporting goods catalogs.

I often wonder what would have happened if my father had not taken the time to be an outdoor mentor to me. I suspect that my passion for the outdoors and everything in it would not exist. I would have been forced to seek other interests, and these would likely have been more of a diversion than an education.

It saddens me to think that I might have missed those experiences and my current opportunity to share my love of the outdoors and nature through the hunting, trapping and shooting programs we offer at the Andy Dalton Range. I have learned that I, too, have the ability to teach and mentor people in much the same way as my father mentored me.

## Mentoring Matters

As outdoorsmen and women, and especially as Hunter Education instructors, we have a duty to mentor someone in the same outdoor classroom as my father once did. Hunter Education does not have to end with a temporary certification card and a Safe Hunter patch. Sadly, this is an opportunity that we often miss. I know that I've used the excuse that I am too busy or too



running along, balancing on a power line and nearly falling with each step. These are things found in our modern outdoor classrooms.

After investing time as a mentor and guide to those new to the outdoors, it is a natural step to begin educating them about hunting and shooting in a safe, responsible, ethical manner.

You can teach them about the role hunters and trappers currently fill and how this all ties back to their ancestors. You could also invite your new outdoor students to join you in an activity like sharing a meal of wild game or bringing them along on your next visit to the shooting range.

All of these ideas create prime mentoring opportunities where you can introduce someone to hunter education and reinforce what we teach—the appreciation of the outdoors. I know everyone who reads this will have life experiences, just like I do. Consider how important those experiences were to creating the person you are today. Take the time to become an outdoor mentor and introduce as many children and their families to our way of life as possible. I know that together we can make a difference in many lives. Our future, along with the future of conservation, depends on it. ▲

**After investing time as a mentor and guide to those new to the outdoors, it is a natural step to begin educating them about hunting and shooting in a safe, responsible, ethical manner.**

**“I have learned that I, too, have the ability to teach and mentor people in much the same way as my father mentored me.**

tired, but then I think of my father. What if he had always been too busy or too tired to spend his time mentoring me?

It is never too late to begin mentoring someone in the outdoors and, contrary to what we might think, it doesn't have to be an extravagant exercise. It may be something as simple as taking some of the neighborhood families or children on a walk and teaching them the difference between a calm, happy, peaceful birdcall, compared to an alarm or distress call. Or perhaps showing them what rabbit tracks look like in the snow or pointing out a squirrel





# A Win-Win *for* Prairie-Chickens *and* Ranchers

Patch-burn grazing partnership  
improves prairie for birds and cattle.

*by* BONNIE CHASTEEN





With patch-burn grazing, livestock eat native grasses, leaving tall wildflowers and the patchy, complex structure grassland wildlife needs to survive.



One bright, windy morning last March, Dade County rancher John Kremp and his nephew, Jonathan, unloaded 100 cows and their calves onto a half-section of native prairie. The gates clanged, the calves bawled, and the boss cow led the herd into new grass. The scene looked and sounded like an ordinary day on the ranch.

John's delivery, however, was anything but ordinary. He was keeping his end of a special partnership designed to double Stony Point Prairie Conservation Area's acres of prime prairie-chicken habitat.

**Jonathan Kremp (right) John Kremp (center) and Stony Point Prairie CA Manager Kyle Hedges (left) have developed a partnership to double the acreage of prairie-chicken habitat.**

### **Chickens Need Their Space**

The history of this partnership begins with the birds. Before European settlement, native grasslands covered nearly half of Missouri, and prairie-chickens numbered in the hundreds of thousands. When settlers arrived, they hunted the chickens for food and trade, and eventually farms and towns replaced most of the prairie. By 1906, the birds' population in Missouri was too small to support a hunting season. Today, fewer than 500 birds scattered in isolated flocks remain in Missouri, and the prairie-chicken is listed as endangered in the state.

Although prairie-chickens continue to thrive in some parts of their historic range, such as Kansas and Nebraska, they do so only where the habitat suits them. Suitable habitat has very few trees, which provide hunting perches for hawks and owls, as well as travel lanes for the mammals that prey on prairie-chickens and their eggs.

Suitable habitat also means open, mixed grassland complete with patches of bare ground and thick cover. Such habitat provides safe places for the birds to court and nest, and its open nature gives chicks room to forage for bugs and seeds. To top it off, prairie-chickens need this mix of suitable habitat on at least 4,000 acres scattered within a larger area of 10,000 acres (see Partners in Flight sidebar).

### **Back to the Future**

One of the things that makes the partnership between John Kremp and the Conservation Department so special is the management approach, which is based on a grazing regime called patch-burn grazing.

This approach mimics our native grasslands' historic rhythms. Before settlement,







**Controlled burns, along with grazing from cattle, help create a suitable habitat for prairie-chickens.**

periodic fires swept the grasslands, clearing them of dead growth and encroaching trees. Following the fires, new grass shot up, attracting herds of buffalo and elk. After these herds grazed heavily on the lush, new growth, they moved on, leaving the grazed land to rest and recover. This combination of disturbance and rest creates the mixed grassland that prairie-chickens and other ground-nesting birds need to survive.

The “old-fashioned” patch-burn grazing regime works for modern-day ranchers, too. It lets them manage grazing land with fire instead of fences. In the spring, they burn one-third of a large pasture, stimulating a burst of new growth. Cattle let onto this pasture graze the new growth heavily in the most recently burned patch. Unburned portions receive much less grazing pressure. Managers then remove the cattle after approximately 120 days, allowing the burned, grazed patch to rest and recover.

Over succeeding years, managers repeat the cycle, burning and grazing a new third of the pasture every year, while the animals’ natural grazing preferences allow the remaining two-thirds to recover.

Patch-burn grazing research results are impressive from both ecological and economic points of view. A recent Department study, funded by the Natural Resources Conservation Service and conducted with the help of private stockgrowers on five public prairies, showed an increase in the number of native plant and ani-

## Partners in Flight

Partners in Flight is a cooperative effort between federal, state and local government agencies, philanthropic foundations, professional organizations, conservation groups, industry, the academic community and private individuals. Its mission is to help species at risk, keep common birds common and offer voluntary partnerships for birds, habitats and people. The Conservation Department approved the Partners in Flight’s recommendations for recovery of the greater prairie-chicken in Missouri in 2006.

The Partners in Flight Grassland Bird Conservation Area Model recommends management of open, grassland-dominated landscapes of at least 10,000 acres, along with the following criteria:

- Each 10,000-acre landscape should contain a well-managed, protected core habitat of at least 2,000 acres.
- An additional 2,000 acres of well-managed grasslands, at least half of which are tracts larger than 100 acres, should complement the core.
- Woody cover should be less than 1 percent within the core and less than 5 percent throughout the landscape.

Six such landscapes are in Missouri (see map). Recovery will be considered accomplished when a Missouri population totaling at least 3,000 birds, with no fewer than 200 individuals on any one of the six target landscapes, persists for 10 years. Long-term goals of Partners in Flight include delisting the greater prairie-chicken as endangered in Missouri.



MAP BY SOPHIE BINDER

**Yellow areas represent Grassland Conservation Opportunity Areas. Black outlined areas represent grassland coalition focus areas.**

mal species—including prairie-chickens—following the patch-burn grazing regime.

Stocker calves in the study also gained an average of 1.6 pounds per day through the summer months—a rate better by more than half a pound than the 0.97 pounds per day that stockers typically gain grazing fescue in sum-



mer. These results suggest that cattlemen can use patch-burn grazing to maximize gains during Missouri's hot summer months, as well as restore grassland habitat on their land.

### An Offer He Couldn't Refuse

Stony Point's manager, Kyle Hedges, arrived in 2003. A couple of years earlier, the Missouri Prairie Foundation had added 320 acres of adjoining prairie to Stony Point, bringing the area to 960 acres. Kyle got to work implementing the Department's area management plan, which features woody species control and patch-burn grazing to improve the native prairie.

When Kyle began clearing trees and burning grass on the Foundation's added half-section, he noticed that the neighbor's cows would reach through the fence to nip the overly abundant grass on the Stony Point side. The neighbor was John Kremp, who, as is customary on most Missouri cow-calf operations, kept cattle on his pasture year-round.

As the seasons passed, it became obvious to Kyle that the amount of grass left standing on both sides of the fence needed better balance to benefit the birds. Kyle says, "John had cows, and it looked like he could use some more grass.

We had grass, but we needed cows to apply our patch-burn grazing regime."

It was a classic win-win situation for both. Kyle worked with Max Alleger, the Department's prairie-chicken recovery leader, to develop a plan to build habitat in a way that fit the neighbor's financial situation. It wasn't long before Kyle called John and made him an offer he couldn't refuse.

### A Sweet Deal

"The price was right," John says of Kyle's offer. It took a while to work out the particulars, and John had to buy a portable corral to move the cattle from pasture to pasture. But he was more than happy to accept 135 days of grazing a year on two different Stony Point tracts in exchange for removing trees and adopting a more conservative grazing approach that would strengthen native grasses and benefit native birds on his own prairie.

John is also pleased that his efforts will help return prairie-chickens to his neighborhood. He and his family have owned the land next to Stony Point Prairie for generations. In fact, the Burns' tract originally belonged to John's great uncle. John says he recalls hearing prairie-chickens on their land when he was a boy.

**The partnership between John Kremp and Kyle Hedges has brought Stony Point's prairie-chicken habitat to more than 1,280 acres. In 2007, five males boomed on the public portion of the landscape for the first time in several years, and they've been back every year since.**



NOPPADOL PAOTHONG



## Kansas Prairie-Chickens Take Hold in St. Clair County *by Jim Low*

Efforts to reestablish a breeding population of greater prairie-chickens in St. Clair County are starting to show signs of success. In the spring of 2008, the Conservation Department trapped 45 male prairie-chickens in the Smoky Hills region of Kansas and brought them back to be released at Wah'Kon-Tah Prairie near El Dorado Springs. Prairie-chicken hens and chicks from Kansas arrived at Wah'Kon-Tah the following August. Conservation Department workers repeated the process in 2009 and are well into the third cycle of the five-year habitat-use study, which is part of Missouri's Greater Prairie-Chicken Recovery Plan. So far, they have released 200 prairie-chickens. The adults—148 in all—have been fitted with radio transmitters so biologists can track their movements and survival. Approximately one-fourth of the translocated birds remain alive on Wah'Kon-Tah Prairie and other nearby grasslands. A few have moved to Taberville Prairie 10 miles north of Wah'Kon-Tah or joined a small natural remnant prairie-chicken population between El Dorado Springs and Nevada. Some males have returned to the booming ground established on Wah'Kon-Tah Prairie in 2009. These are positive indications that initial translocation efforts are proving successful and that there may have been reproduction on Wah'Kon-Tah Prairie last year.



NORPADOL PHOTOGRAPH

**A female greater prairie-chicken is released at Wah'Kon-Tah Prairie near El Dorado Springs.**

### Chickens Approve

It's been five years since Kyle invited John to graze cattle on Stony Point in exchange for adding his half-section to the area's patch-burn grazing regime. Their partnership brought Stony Point's prairie-chicken habitat to more than 1,280 acres. Quail have increased dramatically, and prairie-chickens have been seen on both the public and private tracts at Stony Point since the agreement was forged.

Neighbors have reported seeing a pair of prairie-chickens on John's land for the first

time in more than a decade. In 2007, five males boomed on the public portion of the landscape for the first time in several years, and they've been back every year since.

"We've increased the prairie-chicken population in this neighborhood by 200 percent," Kyle says with a laugh.

Turning serious, he points to a ridge running along the south edge of the Burns' property. "Chickens like to boom on high, open places," he says. "I'm almost positive that ridge was a booming ground historically. If we can get boomers back on that ridge, I will consider our work here a success."

### Get Involved

To learn more about prairie-chicken recovery efforts, go to [www.MissouriConservation.org/17070](http://www.MissouriConservation.org/17070). Read *Conservationist* stories about prairie-chickens at [www.MissouriConservation.org/19197](http://www.MissouriConservation.org/19197) and [www.MissouriConservation.org/3987](http://www.MissouriConservation.org/3987).

Consider joining a Missouri Grasslands Coalition group, which offers opportunities for everyone from birdwatchers to hunters to farmers.

Missouri has six Grassland Conservation Opportunity Areas. If you have a quarter-section or more of native prairie in one of them and would like to discuss the feasibility of a cooperative public-private patch-burn grazing regime, contact your closest regional office (see Page 3).

### The Long View

By all accounts, Missouri has about 400 prairie-chickens left. These rare birds have large home ranges that overlap protected prairies and working farms. Restoring boomers to Stony Point—and a sustainable population of at least 3,000 birds in the state—depends on land management practices that create suitable habitat and pay their way across our prairie landscapes. Innovative approaches that fit local circumstances, like the partnership between John Kremp and the Department at Stony Point Conservation Area, are a step in the right direction. ▲



## American White Pelican

*Discover these large, impressive birds fishing Missouri's big rivers, reservoirs and wetlands.*

THE AMERICAN WHITE Pelican (*Pelecanus erythrorhynchos*) with its 9-foot wingspan and huge yellowish-orange pouched bill is one of North America's most impressive water birds. Clad in white with black wing tips and a neck that is permanently fixed in an S-shape, pelicans are striking but a bit awkward in appearance. Breeding adults are even more intriguing as they grow a vertical plate at the end of their bill, which distinguishes them during the courtship season. During the spring and fall migration, pelicans can be found on Missouri's reservoirs, large rivers and wetlands where they spend most of their time feeding and resting from their travels. If you are lucky enough to see a group of pelicans take flight, you will be treated to a graceful performance as these huge birds ascend to altitude, white wings reflecting in the sun, in a motion that forms a natural kaleidoscope. Historically, pelican viewing in Missouri was typically limited to locations in the western part of the state, but over the past 10 years pelicans have become a common sight at locations along the Mississippi River in eastern Missouri.

Feeding behavior of white pelicans is as fascinating as their aerial demonstrations but not quite as graceful. Unlike the brown pelican, a coastal species that dives for its food, white pelicans swim toward fish and scoop them from the water. An individual floats in place, staring intently into the water until it spies a fish near the surface. Next, the pelican drops its "fish net" in the water and bursts forward, catching its prey. Things don't always go smoothly as pelicans often begin swimming frantically in circles, trying to close in on a skittish gizzard shad, carp or other species. Even more interesting is the team feeding behavior that pelicans exhibit as they form a semicircle and close in on their prey by herding them into shallow water or a cove where they are trapped and eaten.

Pelicans consume, on average, about 3 pounds of fish per day, often the culmination of many smaller fish. However, I recently photographed pelicans eating large individual fish, specifically Asian carp, in one meal. It is funny to watch a pelican take a fish so large that the tail of the catch is still in the bill, protruding against the soft tissue of the pouch, long after the prey has been swallowed.

If you would like a "pelican experience," take a trip to one of Missouri's public areas where these wonderful birds concentrate during their migration across our state. Pelicans usually arrive in Missouri starting in September and often stay around the entire winter if ice doesn't set in on our rivers and lakes. During extreme winters pelicans fly farther south but usually return to Missouri in March and April. Some of the best areas for pelican viewing include Swan Lake National Wildlife Refuge, Squaw Creek National Wildlife Refuge, Montrose Conservation Area, Schell-Osage Conservation Area, Dresser Island at the Upper Mississippi Conservation Area and Riverlands Migratory Bird Sanctuary. For more information on conservation areas, search our online atlas at [www.MissouriConservation.org/2930](http://www.MissouriConservation.org/2930). Get outside and discover pelicans—you won't be disappointed!

—story and photo by Danny Brown









## White Alloe Creek CA

*Enjoy a day of history and nature at this area northwest of Kansas City.*



MAKE UP A picnic basket and grab your camera for a day at White Alloe Creek Conservation Area. Indistinguishable from the Parkville Nature Sanctuary, to which it is leased, the 66-acre White Alloe Creek CA offers hiking, nature viewing, Saturday morning interpretive programs and a glimpse of local cultural and natural history.

White Alloe Creek CA and Parkville Nature Sanctuary lie southwest of Riss Lake and occupy land that once served as a working farm for students of Park College. The farm's root cellar still stands.

The Girl Scouts also made their mark on this land. They built a cabin with funds raised from scrap iron sales during World War II. After the original building fell into disuse, sanctuary volunteers renovated it, turning it into a rustic pavilion for gatherings and picnics.

One of the area's many trails passes by the pavilion and turns into a boardwalk to convey hikers safely through wetland habitat. Further on, the trail crosses White Alloe Creek and cuts between two scenic waterfalls cascading down from Riss Lake. The sanctuary's extensive trail system leads visitors through several different kinds of habitats including forests and wetlands. Some of the trails are quite challenging, others are more moderate, and one is designed to accommodate visitors with disabilities.

The area is great for birding, and you can find an extensive record of resident forest birds and spring migrant songbirds at the website listed below.

Butterflies, however, are the main winged attraction in August. Expect to see regal fritillary, monarch, swallowtail, red admiral, mourning cloak, sulphurs and blues. The area is rich in all kinds of wildlife, and you may encounter deer and turkey almost any time of the year.

Volunteers with the Parkville Nature Sanctuary offer an interpretive program for families between 10 a.m. and 12 noon on Saturdays. You can also call the volunteer office to schedule youth group programs at other times. In fact, the sanctuary depends on volunteers and invites you to call if you're interested in helping with programs or trail work. Find White Alloe Creek CA and Parkville Nature Sanctuary alongside Highway 9 in Parkville. The website listed below includes an area map and brochure.

—Bonnie Chasteen, photo by David Stonner

**Recreation opportunities:** Bird watching, hiking, picnicking, nature viewing and interpretive programs offered by Parkville Nature Sanctuary volunteers

**Unique features:** This mostly forested area adjoins the Parkville Nature Sanctuary, which includes a picnic area, pavilion, viewing deck and White Alloe Creek.

### For More Information

Call 816-655-6250 or visit [www.MissouriConservation.org/a9730](http://www.MissouriConservation.org/a9730)









# Hunting and Fishing Calendar

## FISHING

Black Bass (certain Ozark streams, see the *Wildlife Code*)

5/22/10 2/28/11

impoundments and other streams year-round

Bullfrogs and Green Frogs Sunset Midnight

6/30/10 10/31/10

Nongame Fish Giggling 9/15/10 1/31/11

Trout Parks 3/01/10 10/31/10

## HUNTING

Coyotes 5/10/10 3/31/11

Deer

Firearms

Urban 10/08/10 10/11/10

Early Youth 10/30/10 10/31/10

November 11/13/10 11/23/10

Antlerless 11/24/10 12/05/10

Muzzleloader 12/18/10 12/28/10

Late Youth 1/01/11 1/02/11

Archery

9/15/10 11/12/10

11/24/10 1/15/11

Doves 9/01/10 11/09/10

Furbearers 11/15/10 1/31/11

Groundhog 5/10/10 12/15/10

Pheasant

Youth (North Zone only) 10/30/10 10/31/10

North Zone 11/01/10 1/15/11

Southern Zone 12/01/10 12/12/10

Quail 11/01/10 1/15/11

Youth 10/30/10 10/31/10

Rabbits 10/01/10 2/15/11

Rails (Sora and Virginia) 9/01/10 11/09/10

Squirrels 5/22/10 2/15/11

Teal 9/11/10 9/26/10

Turkey

Fall Firearms 10/01/10 10/31/10

Archery 9/15/10 11/12/10

11/24/10 1/15/11

Waterfowl please see the *Waterfowl Hunting Digest* or

see [www.MissouriConservation.org/7573](http://www.MissouriConservation.org/7573)

Wilson's (common) snipe 9/01/10 12/16/10

Woodcock 10/15/10 11/28/10

## TRAPPING

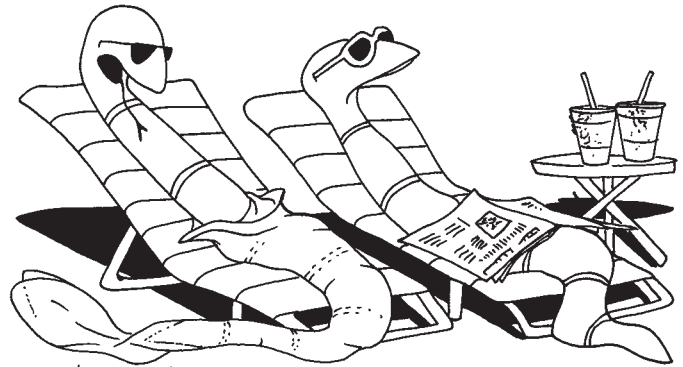
Beavers and Nutria 11/15/10 3/31/11

Furbearers 11/15/10 1/31/11

Otters and Muskrats 11/15/10 2/20/11

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit [www.MissouriConservation.org/8707](http://www.MissouriConservation.org/8707) or permit vendors.

The Department of Conservation's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800-392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to [www.wildlifelicense.com/mo/](http://www.wildlifelicense.com/mo/).



"Rats! Just when I've achieved the perfect summer tan, I had to go and shed."

## Contributors

MICHAEL E. BROOKS is the outdoor education center supervisor at the Andy Dalton Shooting Range and Outdoor Education Center. He spends time enjoying nature in the Ozarks. He has a true passion for teaching others about shooting and hunting safely.



CHRIS CANIPE is a graduate student at the University of Missouri School of Journalism in Columbia. He's an occasional freelance writer and information graphics designer as well as a singer and songwriter. He enjoys playing Scrabble.

*Conservationist* staff writer BONNIE CHASTEEN loves helping people discover and appreciate the beauty and natural diversity of our native grasslands. In her off hours, she paints Missouri River landscapes and helps her friends conduct prescribed burns on their prairies and savannas.



REGINA KNAUER, Outreach Programs Chief for MDC, lives in Jefferson City and shares an 82-year-old farm house with two cats, Sarge, the best dog ever, and various and sundry other wildlife. She enjoys gardening, hunting, fishing, floating clear, Ozark streams and scuba diving.



# WHAT IS IT?

## Walleye

On the back cover and right are walleye. The fish's large, opaque eyes are efficient at gathering light, allowing them to feed during low-light conditions and nighttime hours. Excellent sporting qualities, large size and firm, tender flesh make the walleye one of our most important game fishes. The Conservation Department has been stocking this popular game fish in Stockton, Lake of the Ozarks, Bull Shoals and numerous other reservoirs, and they should soon have an impressive walleye fishery.



## AGENT NOTES

### *Catfishing during the dog days of summer*

THE DOG DAYS of summer are now upon us. So how does an outdoors enthusiast beat the heat and still have a productive outing? One of the best ways, next to a relaxing float on your favorite stream, is nighttime catfishing. Catfish are most active from dusk to dawn when the air and water temperatures are cooler, making this your best chance to get out of the heat and still catch a mess of fish.

Productive methods for catching catfish include pole and line, trotline, limb line, bank line and jug line. You can use up to three unlabeled poles; however, trotlines, limb lines, bank lines and jug lines need to be labeled on durable material with the name and address of the user. If you are using trotlines, limb lines, bank lines or anchored jug lines

you must check them at least every 24 hours. Unanchored jug lines used in impoundments must be personally attended at least every hour.



Unanchored jug lines in streams must be personally attended at all times. When using any of these methods you cannot exceed 33 hooks in the aggregate. The exception to this is on the Mississippi River where you can use no more than 50 hooks in the aggregate and not more than two unlabeled poles.

When fishing for any species it is important to know the daily limits. Catfishing is no different. The statewide daily limit is 10 channel catfish, five blue catfish and five flathead catfish for a total of 20 fish. However, on the Mississippi River the daily limit is 20 channel catfish and blue catfish in the aggregate and 10 flathead catfish. Bullhead catfish are considered to be in the "other fish" category, of which the limit is 50 fish. These are the statewide limits and regulations, further limits and regulations may apply on your local lakes or streams. Please refer to the *Summary of Missouri Fishing Regulations* for catfish identification and specific area regulations.



Eric Long is the conservation agent for Reynolds County. If you would like to contact the agent for your county, phone your regional Conservation office listed on Page 3.



# WHAT IS IT?

Our photographers have been busy exploring the intricacies of the Missouri outdoors. See if you can guess this month's natural wonder. The answer is revealed on the inside of this back cover.



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*Free to Missouri households*

